

NEW OR LITTLE-KNOWN TIPULIDÆ FROM THE PHILIPPINES (DIPTERA)

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A small but very interesting collection of Philippine crane flies has been received from Prof. Charles Fuller Baker, of the College of Agriculture, University of the Philippines, and is discussed in this paper. Types of all unique specimens have been returned to Professor Baker and so indicated in the text. I have been permitted to retain the types of certain other species, but in all cases duplicate material of these are in Professor Baker's collection. My sincere thanks are extended to Professor Baker for the privilege of studying this important collection of Philippine Tipulidæ.

LIMNOBIINÆ

Conosia irrorata (Wiedemann).

Limnobia irrorata WIEDEMANN, *Aussereur. zweifl. Ins.* 1 (1828) 574.

Conosia irrorata VAN DER WULP, *Tijdschr. v. Entomol.* 23 (1880) 161.

LUZON, Laguna Province, Los Baños (*Baker*); a male and a female.

Epiphragma bakeri sp. nov.

General coloration light brown; legs dark brown, the knees and tarsi yellowish; wings yellow with a heavy dark brown pattern; a series of about a dozen cross veins and spurs in cell C; ventral segments yellow, the incisures narrowly dark brown.

Male.—Length, 9.5 millimeters; wing, 11.3.

Rostrum pale brown; palpi broken. Antennæ broken. Head brown, more fulvous on the vertex.

Mesonotal prescutum light reddish brown, the disk uniformly darker brown, margined anteriorly and laterally by a light gray line; scutum injured by pin, the lobes dark brown, paler laterally; scutellum injured by pin; postnotum brown basally, more pruinose on posterior half. Pleura almost uniformly brown. Halteres long and slender, pale brown, the knobs darker. Legs with the coxæ and trochanters pale brown;

femora dark brown, paler basally, the extreme tips pale yellow; tibiae dark brown, the extreme bases pale yellow; tarsi pale brownish yellow. Wings light yellow with a very heavy, non-ocellate brown pattern, distributed as follows: Large blotches at base of cells R and M; at origin of Rs; along the cord and outer end of cell 1st M_2 and at the tips of all the longitudinal veins; a series of about ten dark brown spots in cells C and Sc; most of the remainder of the wing disk clouded with paler brown, but all of the darker brown areas surrounded by narrow, clear yellow borders; outer ends of cells Sc_1 , 2d R_1 , R_2 , R_3 , M_1 , 2d M_2 , M_3 , Cu_1 , and 1st A with conspicuous pale yellow spots; veins dark brown, paler in the yellow areas. Venation: Sc_2 at the extreme tip of Sc_1 , the latter punctiform; each of the dark spots in costal cell with a spur or complete supernumerary cross vein, there being about a dozen of these beyond h; Rs long, feebly angulated at origin; $R_2 +_3$ a little longer than the basal deflection of Cu_1 ; r at tip of R_1 ; inner ends of cells R_3 and R_5 in alignment; cell 1st M_2 large, the inner end arcuate; petiole of cell M_1 short, a little longer than $R_2 +_3$; m a little shorter than the outer deflection of M_3 ; basal deflection of Cu_1 slightly sinuous, at midlength of cell 1st M_2 ; arcular vein completely obliterated.

Abdominal tergites with the basal half, or slightly less, of each dark brown, the remainder slightly paler, thus producing an indistinct bicolorous appearance; sternites conspicuously light yellow with the caudal margin of the segments narrowly but conspicuously dark brown; intermediate sternites with the extreme bases likewise darkened; eighth segment and hypopygium dark brown.

LUZON, Mountain Province, Benguet, Pauai (Haight's place), altitude about 2,400 meters (*Baker*). Type returned to Professor Baker.

Epiphragma bakeri is a very interesting species, distinguished from all allied forms by the series of supernumerary cross veins in the costal cell. Similar cross veins occur in the eriopterine genera *Conosia* van der Wulp and *Clydonodozus* Enderlein, but were not known in the Hexatomini. The strongest one of these cross veins has persisted in the other known species of *Epiphragma*. This handsome crane fly is dedicated to Prof. Charles Fuller Baker in appreciation of his untiring efforts to make known the remarkable insect fauna of the Philippines.

Eriocera mindanaoënsis sp. nov.

General coloration reddish, the abdomen orange with the terminal segments faintly darkened; mesonotal prescutum reddish

gray with dark red stripes; pleura pale reddish brown, faintly striped longitudinally with dark brown; legs brownish black; wings very long and narrow, strongly suffused with brown; cell M_1 present.

Male.—Length, 20 millimeters; wing, 20, its greatest width, 4.4.

Female.—Length, 22 millimeters; wing, 17.

Male.—Rostrum brown; palpi dark brown. Antennæ dark brownish black, short. Head dark brownish gray; vertex behind antennal bases light gray pruinose; immediately caudad of the antennal bases a low, black, vertical tubercle whose cephalic margin is truncated, the lateral angles prominent; immediately behind this is a second tubercle, concolorous with the remainder of the head.

Mesonotal prescutum reddish gray with three, confluent, dark red stripes; remainder of mesonotum obscure reddish brown, the posterior margin of the scutellum faintly pruinose. Pleura pale reddish brown; a distinct, longitudinal, dark brown stripe on mesepisternum; mesosternum and dorsopleural region likewise darker than the ground color of the pleura. Halteres short, dark brown, base of stem narrowly pale. Legs with the coxæ shiny dark brownish red; trochanters dark brown; remainder of legs entirely brownish black; posterior legs broken. Wings very long and narrow, more than four times as long as wide, strongly suffused with yellowish brown, brighter in the costal region; stigma lacking; veins brown. Venation: Sc_1 ending just before r , Sc_2 some distance from tip of Sc_1 , the latter alone a little shorter than the basal deflection of Cu_1 ; R_s only a little longer than R ; $r-m$ on R_4+5 about two and one-half times its length beyond the fork; petiole of cell M_1 a little shorter than cell; basal deflection of Cu_1 just beyond midlength of cell 1st M_2 ; in the right wing of the type, R_1 just before its tip bends down to R_2 in a punctiform contact; in the left wing of the same specimen there is a supernumerary cross vein in cell R_1 just beyond r .

Abdomen with tergites 1 to 4 bright orange; 5 to 7 orange with the median area faintly darkened; 8 and 9 uniformly brown; sternites similarly orange, but the terminal segments even less distinctly darkened; hypopygium small.

Female.—Similar in most respects to the male. Head darker; a clear gray line surrounding the eyes; vertical tubercles present but less developed; prescutal interspaces and a capillary median line brown, dividing the red prescutal stripes; mesosternum not

so distinctly darkened; no supernumerary cross veins in cell R_1 and petiole of cell M_1 longer than the cell; ovipositor with the valves long and slender.

MINDANAO, Bukidnon Subprovince, Tangcolan (*Baker*). The allotypic female has been returned to Professor Baker.

Eriocera mindanaoënsis is related to *E. ferruginosa* van der Wulp (Sumatra and Java). In the latter species the antennal flagellum is light colored, the femora and tibiæ are yellow with dark apices, and the abdominal tergites are margined laterally with dark brown.

Eriocera perennis polillensis subsp. nov.

Female.—Length, about 22 millimeters; wing, 16.8.

Differs from typical *Eriocera perennis* Osten Sacken, as follows: The first scapal segment of antennæ is gray pruinose like the head. Mesonotum shiny black. Legs with the femora dark brown, the tips black. Wings dark brown, the proximal end of cell 1st A pale; cell 2d A not pale at base. Petiole of cell M_1 longer than the cell. Abdominal crossbands on tergites 2, 3, and 4 only; segment 5 entirely dark.

POLILLO (*Edward H. Taylor*). Type returned to Professor Baker.

Eriocera perennis subcostata subsp. nov.

Female.—Length, about 17 millimeters; wing, 12.3.

Differs from typical *Eriocera perennis* Osten Sacken, as follows:

Rostrum and palpi black. Antennæ with the basal segment gray; second scapal and basal two flagellar segments yellow; terminal flagellar segments black. Head clear light whitish gray, the genæ becoming infuscated.

Mesonotal prescutum grayish brown with three clear-cut, confluent black stripes; remainder of thorax velvety black. Wings dark brown; base of wing broadly bright yellow, this color including about the basal third of cells C and Sc, and the cells proximad of arculus; basal fourth of cell 2d A pale; a conspicuous paler yellow crossband before the cord, extending from R into the base of cell Cu_1 ; cell Sc paler than the remainder of the disk, connecting the basal and discal pale areas; veins black, yellow in the pale areas. Venation: Sc_1 ending opposite midlength of the basal section of R_2 ; r about one and one-half times to twice its length beyond the fork of $R_2 +_3$; inner end of cell 1st M_2 nearly square; petiole of cell M_1 shorter than cell; basal deflection of Cu_1 at midlength of cell 1st M_2 .

Abdomen velvety black, the bases of segments 2 to 6 broadly obscure orange yellow, becoming more obscure and more restricted in extent on the posterior segments; segment 7 entirely black; segments 8 and 9 orange; valves of ovipositor black.

MINDANAO, Bukidnon Subprovince, Tangcolan (*Baker*). Type returned to Professor Baker.

Eriocera chalybeicincta sp. nov.

General coloration velvety black; antennal flagellum obscure brownish yellow, darker apically; wings brownish black, the anal cells paler; cell M_1 lacking; basal deflection of Cu_1 near outer end of cell 1st M_2 ; abdomen velvety black, tergites 2 to 7 with shiny, metallic blue rings.

Male.—Length, 14 millimeters; wing, 13.5.

Rostrum and palpi black. Antennæ short; scapal segments black; basal three flagellar segments obscure brownish yellow, the terminal segments passing into dark brown; flagellar segments gradually decreasing in length outwardly. Head velvety black with abundant, elongate, black setæ.

Thorax entirely deep velvety black. Halteres short, dark brown. Legs with the coxæ and trochanters velvety black; femora and tibiæ dark brown, the tips black; tarsi black; legs comparatively stout. Wings brownish black with violaceous reflections; cells M and Cu adjoining vein Cu much paler in one wing of type but not in the other; anal cells grayish; a small pale streak near outer end of cell R; centers of cells 1st M_2 and Cu_1 indistinctly pale; veins black. Venation: Sc_1 ending just before r; Rs about one-third longer than R; $R_2 +_3$ about two-thirds the deflection of $R_4 +_5$; basal section of R_2 about equal to terminal section of R_1 ; basal section of $M_1 +_2$ about two-thirds the second section; cell M_1 lacking; basal deflection of Cu_1 close to or at the outer end of cell 1st M_2 ; Cu_2 and outer deflection of Cu_1 subequal.

Abdomen with the first tergite black; tergite 2 velvety black with a broad, shiny, metallic blue ring before midlength; tergites 3 to 7 with a similar basal ring, more or less telescoped beneath the preceding segment; remainder of abdomen, including hypopygium, black.

MINDANAO, Kolambugan (*Baker*).

Eriocera chalybeicincta is related to *E. morosa* Osten Sacken (Celebes), from which it is distinguished by the coloration of the body and the venation, as see the position of the outer deflection of Cu_1 .

Eriocera vittipennis sp. nov.

General coloration light gray; thorax with black stripes; wings whitish subhyaline, the veins broadly seamed with dark brown to produce a streaked appearance; Sc_1 longer than the basal deflection of Cu_1 ; $r-m$ beyond midlength of cell 1st M_2 ; cell M_1 lacking; basal deflection of Cu_1 at outer end of cell 1st M_2 ; abdomen black, the basal and terminal segments rufous; ovipositor with the valves long and straight.

Female.—Length, about 14 millimeters; wing, 10.2.

Rostrum and palpi dark brown. Antennæ with the first scapal segment elongate, dark brown, dusted with light gray; second scapal segment and basal segment of flagellum yellowish brown, the terminal flagellar segments passing into darker brown. Head light gray, provided with abundant, long, black bristles; no distinct vertical tubercle.

Pronotum light gray. Mesonotal prescutum very light gray with three black stripes, the median stripe very broad in front, near midlength tapering rapidly to a point before the suture, conspicuously split by a pale gray vitta; lateral stripes small but conspicuous, widely separated from the intermediate stripe; scutum light gray, the centers of the lobes blackened; scutellum black, the posterior margin narrowly grayish; postnotum gray. Pleura gray, the mesosternum and mesepisternum with more blackened areas. Halteres small, brown. Legs with the coxæ dark, dusted with gray; trochanters reddish brown; femora dark brown, the bases narrowly obscure yellow, less distinct on midfemora; tibiæ and metatarsi light brown, the tips narrowly darker brown; terminal tarsal segments dark brownish black; posterior legs missing. Wings whitish subhyaline, very conspicuously streaked longitudinally with dark brown, all the veins being broadly seamed with this color, the pale centers to the cells a little narrower than the seams except in cells 1st R_1 , R , and M ; cells C and Sc brown; cells Cu , 1st A and 2d A more uniformly grayish brown; cells R and M narrowly interrupted by a brown wash near midlength; veins dark brown. Venation: Sc_1 ending opposite r , Sc_2 some distance from the tip of Sc_1 , the latter longer than the basal deflection of Cu_1 ; r at fork of R_2+3 ; R_2 about two to three times R_2+3 ; R_2+3 and the deflection of R_4+5 subequal; basal section of M_1+2 one-half longer than the second section; inner end of cell 1st M_2 pointed; cell M_1 lacking; basal deflection of Cu_1 almost opposite the outer end of cell 1st M_2 , about equal to Cu_2 .

Abdomen with the basal segment black, dusted with gray; tergites 2 and 3 bright rufous, gray pruinose basally on the sides and with a broad, median black stripe; tergites 4 to 7 black, dusted with gray; segments 8 and 9 rufous; sternites 1 to 3 and 8 and 9 rufous; sternites 4 to 7 black. Ovipositor with the valves very long and slender, rufous at base, passing into horn color at the gently upcurved tips of the tergal valves.

MINDANAO, Bukidnon Subprovince, Tangcolan (*Baker*).

Eriocera vittipennis is abundantly distinct from all described species of this large and complex genus.

TIPULINÆ

Scamboneura plumbea sp. nov.

General coloration dark plumbeous, dusted with gray; wings faintly grayish brown, cell Sc and the stigma brown; abdominal segments cross-banded with reddish orange and blue-black.

Female.—Length, 17 millimeters; wing, 15.

Frontal prolongation of head dark brownish black, narrowly obscure reddish on the dorsolateral region; nasus conspicuous, black; palpi dark brown, the elongate terminal segment paler on basal half. Antennæ black, including the scape, the tip of the second scapal segment narrowly paler. Head black, the vertex obscurely reddish behind the antennæ, the color extended as a narrow border to the eyes.

Prothorax dark plumbeous. Mesonotal prescutum and scutum dark plumbeous, only the humeral region very restrictedly obscure reddish; scutellum obscure yellow; postnotum plumbeous, the lateral sclerites more testaceous. Pleura plumbeous with a light, blue-gray bloom. Halteres dark brown, base of the stem brightened. Legs with the coxae blue-gray; trochanters yellow; femora dark brown, narrowly brighter at base; tibiæ and tarsi brownish black. Wings with a faint grayish brown tinge, a little darker beyond the cord; cell Sc and the small stigma darker brown; veins dark brownish black. Venation: Sc_1 ending opposite the base of r-m, Sc_2 at its tip; Rs short but distinct; $R_2 +_3$ about equal to the deflection of $R_4 +_5$, in alignment with $R_4 +_5$; r at fork of $R_2 +_3$; tip of R_2 atrophied; deflection of $R_4 +_5$ directed basad as in the genus, subequal to r-m; forks of cells M_1 , M_2 , and M_3 , deep; basal deflection of Cu_1 about two-thirds of its length beyond the fork of M. The stigma entirely fills the small cell 1st R_1 .

Abdomen with the basal tergite plumbeous; segment 2 reddish, darker dorsomedially, the apical two-fifths shiny blue-

black; segments 3 and 4 with a little less than the basal half of each reddish orange, darker dorsomedially, the remainder shiny blue-black; segments 5 and 6 reddish orange, darker dorsomedially; segments 7 and 8 blue-black; segment 9 and ovipositor obscure brownish orange. Ovipositor with the tergal valves elongate, compressed, the tips rather obtusely rounded.

LUZON, Mountain Province, Benguet, Pauai (Haight's place), altitude about 2,400 meters (*Baker*).

Scamboneura plumbea is very different from the two Philippine species of the genus hitherto described. There are now five species of *Scamboneura*, all from Amboina, Java, and the Philippines. The two species from East Africa described as species of this genus by Speiser and by Riedel are not members of the genus in the sense of Osten Sacken. One, at least, belongs to the subgenus *Trichodolichozeza* Alexander, of the genus *Dolichozeza* Curtis.

Pselliophora perdecora sp. nov.

General coloration obscure orange, the abdominal segments beyond the second shiny black; legs with the femora bright yellow, the tibiae and tarsi black; wings dark brown, the base rather broadly bright yellow.

Female.—Length, about 20 millimeters; wing, 20.

Frontal prolongation of the head orange, the nasus faintly darker; basal segments of palpi yellow with brown setae; terminal segment yellow, the extreme tip darkened. Antennae brownish orange throughout; first flagellar segment subequal to segments 2 and 3 combined. Head obscure orange.

Thorax entirely obscure orange, without markings. Halteres yellowish orange. Legs with the coxae and trochanters concolorous with the pleura; femora bright yellow, the extreme apices very indistinctly darker; tibiae and tarsi black, unmarked. Wings broad, dark brown, the base rather broadly and conspicuously bright yellow, this including about the basal fifth of cells C and Sc, the extreme bases of cells R, M, Cu, and 1st A, about the basal third of cell 2d A and all the cells proximad of arculus; an indistinct pale area immediately proximad of the stigma; a linear white streak in cell R near midlength; a similar but smaller streak near the outer end of cell M (lacking in one wing of type) and a third streak near outer end of cell 1st A; veins dark brown, yellow in the flavous basal area; obliterative breaks at the end of Rs and base of R_2+3 , basal section of M_1+2 and the second section of M_3 . Venation: Rs much longer than R_2+3 , its course subsinuuous; R_2+3 longer

than the ultimate section of R_2 ; cell M_1 rather broadly sessile; m-cu distinct.

Abdomen with segments 1 and 2 orange, the extreme lateral apical angle of tergite 2 darkened; remainder of abdomen shiny black, only the tips of the ovipositor deep reddish. Valves of ovipositor comparatively long and slender.

MINDANAO, Bukidnon Subprovince, Tangcolan (*Baker*).

Pselliophora perdecora belongs to the *incunctans* group of the genus, an aggregation of large, showy species that contains some of the most beautiful crane flies known. *Pselliophora incunctans* (Walker) and *P. incunctans ochrifemur* Enderlein of Celebes, *P. praefica* Bezzi and *P. tripudians* Bezzi of the Philippines, and possibly other species belong to this group.

Pselliophora praefica Bezzi.

Pselliophora praefica BEZZI, Philip. Journ. Sci. § D 12 (1917) 110.

The undescribed female of this species may be described as follows:

Length, 21 millimeters; wing, 19.

Head black, the genæ and occiput deep reddish brown. Other characters entirely as in male. Ovipositor with the valves black, only the extreme tips reddish.

MINDANAO, Kolambugan (*Baker*). Allotype. Female. The allotype has been returned to Professor Baker.

Bezzi's type male was likewise from Mindanao. In the collection of the State Natural History Museum in Vienna, Brunetti¹ found a male and a female of this species from Palawan. These he considered to represent a variety of *P. incunctans* (Walker), but in my opinion there can be no doubt but that *P. praefica* is a distinct species.

Pselliophora tripudians Bezzi.

Pselliophora tripudians BEZZI, Philip. Journ. Sci. § D 12 (1917) 111.

A female agrees very closely with Bezzi's description except that the specimen is smaller (length, 17 millimeters; wing, 16). The foreleg, lacking in Bezzi's type, is very different from the other legs and may be described as follows: Femora entirely light yellow, the tip not darkened; tibiæ yellow, the tip a little infuscated; tarsi entirely brownish black.

LUZON, Laguna Province, Los Baños (*Baker*). This specimen has been returned to Professor Baker.

¹ Rec. Indian Mus. 6 (1911) 239.

In the collection of the Paris Museum, a somewhat broken male specimen was found which is surely the male of this species. It is herewith described as allotypical.

Male.—Similar to the female, differing as follows: Basal segments of antennæ yellow, passing into brown toward the tips; flabellations of antennæ dark brown. Mesonotum entirely orange, including also the coxæ and trochanters of all the legs; the forelegs are broken but the other legs are entirely as in the female. Abdomen black, the hypopygium conspicuously and abruptly reddish orange, only the caudal margin of the ninth tergite and the pleural appendages dark.

LUZON, Manila, No. 246-1861. Allotype, male, in the collection of the Paris Museum.

Pselliophora tripudians is evidently allied to, but distinct from, *P. incunctans* (Walker) of Celebes. The thoracic pattern is paralleled in the two sexes of the two species.

Pselliophora pumila sp. nov.

General coloration black, the mesonotal prescutum yellow with three grayish brown stripes; all tibiæ ringed basally with white; wings grayish brown; cells C and Sc dark brown; a brown clouding along the cord; abdomen black, the caudal margin of tergites 2 to 4 narrowly yellow.

Male.—Length, 10 millimeters; wing, 11.

Frontal prolongation of head dark brown; palpi concolorous. Antennæ dark brown throughout; flabellations of antennæ conspicuously clothed with white hairs. Head dark brown.

Pronotal scutum dark brown; scutellum dark brown medially, the lateral portions yellow. Mesonotal prescutum yellow with three conspicuous brown stripes that are dusted with gray; median stripe very broad; lateral stripes small, confluent with the median stripe near suture; pseudosutural foveæ small, brown; scutum and postnotum black; scutellum black with conspicuous, elongate, yellow bristles and delicate transverse rows of microscopic yellow hairs. Pleura dark brown, the extreme dorsopleural region faintly yellowish. Halteres dark brownish black, the base of the stem indistinctly yellow. Legs with the coxæ and trochanters black, femora black, about the basal half of the posterior femora more testaceous; tibiæ black with a conspicuous white ring just beyond the base, this broadest and most distinct on the posterior tibiæ; tarsi black. Wings clouded with grayish brown; costal region dark brown, including cells C and Sc; paler brown clouds along the cord and along vein Cu; veins dark brown. Venation: Sc₂ ending about opposite two-

thirds R_s ; $R_2 +_3$ short, about equal to the distal section of R_2 , much shorter than the basal deflection of Cu_1 ; cell M_1 very short-petiolate; a slight fusion of M_3 and Cu_1 .

Abdomen shiny black, the caudal margins of tergites 2, 3, and 4 rather narrowly but conspicuously yellow. Hypopygium comparatively large and complex, black, the ninth segment elongate-cylindrical and tilted at an angle to the remainder of the abdomen.

LUZON, Mountain Province, Benguet, Pauai (Haight's place), altitude about 2,400 meters (*Baker*).

Pselliophora bicinctifer sp. nov.

General coloration black; antennal flagellum with only nine segments; mesonotal prescutum obscure yellow with three brownish black stripes; halteres yellow; tibiæ dark brown with a basal and a subterminal yellowish ring; wings pale grayish yellow, the cells beyond the cord dark brown; abdomen deep rufous, the tergites trilineate with black, the sternites with only the lateral margins narrowly darkened.

Female.—Length, about 17 millimeters; wing, 15.

Frontal prolongation of the head dark brownish black, clothed with conspicuous golden yellow and black bristles interspersed; palpi brown, the third segment pale at base and apex; terminal segment black beyond the base. Antennæ with the first segment brownish black, the remainder bright orange yellow; flagellum with only nine segments, the first segment shorter than the second and third combined; segments 2 to 5 narrow at base, the proximal face dilated; terminal segments flattened, disklike, greatly crowded. Head dark brownish black.

Pronotum dark brownish black. Mesonotal prescutum obscure yellow, with three conspicuous brownish black stripes, the median stripe narrowed behind but attaining the suture; scutal lobes with brownish black centers; median area in front with a triangular shiny area immediately behind the suture; scutellum brown; postnotum dark brown. Pleura dark velvety brownish black. Halteres light yellow. Legs with the coxæ velvety brownish black; trochanters brownish black, the tips fading into reddish; femora yellow, the tips broadly and conspicuously blackened; tibiæ yellow, the tips narrowly dark brown; a conspicuous dark brown annulus occupies the mid-center of each tibia, restricting the ground color to a narrow basal and a slightly broader subapical yellow ring; metatarsi yellow, the tips black; remainder of tarsi black; inner face of claws microscopically denticulate. Wings with the cells proxi-

mad of the cord light grayish yellow, the broad apex brown; stigma still darker brown; cell C darkened except for a narrow space at either end; cell Sc dark except for a narrow space at base; a conspicuous dusky cloud along vein 1st A; base of wing brighter yellow; a band along the cord (including base of cells 1st R_1 , 1st M_2 , M_4 , and Cu_1 and the outer ends of cells R and most of M, especially along vein Cu) much clearer yellow than the remainder of the basal cells; anal cells pale; veins dark brown, yellow in the pale areas, including the entire length of vein Cu. Venation: R_s arcuated; R_2+3 about equal to the distal section of R_2 ; R_2 at base perpendicular to R_2+3 ; cell M_1 barely sessile; cell 1st M_2 irregularly pentagonal, none of the faces exactly parallel; in one wing of type a supernumerary cross vein in the base of cell M_4 ; fusion of M_3+4 and Cu_1 punctiform.

Abdomen with basal tergite deep rufous, the caudal margin black; remaining tergites deep rufous, trilineate with black, the narrow median stripe slightly interrupted at the posterior margin of the segments; sternites deep rufous, the lateral margins narrowly darkened. Ovipositor with the tergal valves straight, yellowish horn color.

LUZON, Mountain Province, Benguet, Pauai (Haight's place), altitude about 2,400 meters (*Baker*). Type returned to Professor Baker.

Nephrotoma ortiva (Osten Sacken).

Pachyrrhina ortiva OSTEN SACKEN, Berliner Ent. Zeitsch. 26 (1882) 93.

LUZON, Laguna Province, Los Baños (*Baker*). A female that agrees closely with Osten Sacken's type female, except in the following characters:

Length, 15 millimeters; wing, 12.

Scutum yellow, each lobe completely traversed by a shiny black longitudinal stripe which leaves not only the median area yellow, as stated by Osten Sacken, but also the posterior lateral portions of each lobe; scutellum black; caudal margin of lateral sclerite of postnotum black.

Abdominal segments 2 to 6 with a broad, black, terminal band that is slightly, if at all, attenuated laterally, the band occupying about the posterior half of each segment.